

FIG. 1a

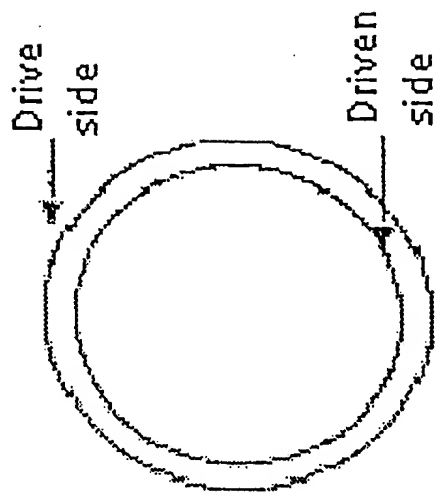


FIG. 1b

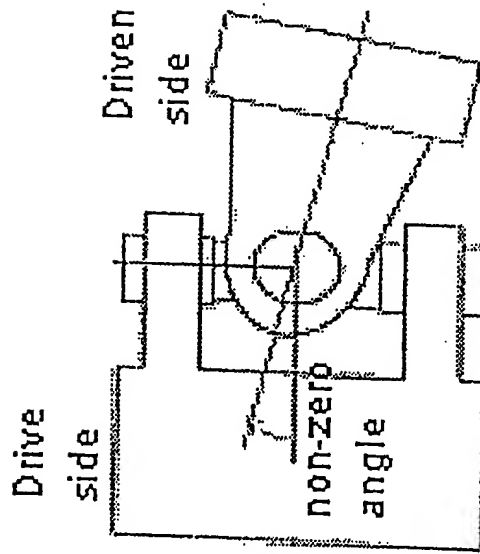


FIG. 2a

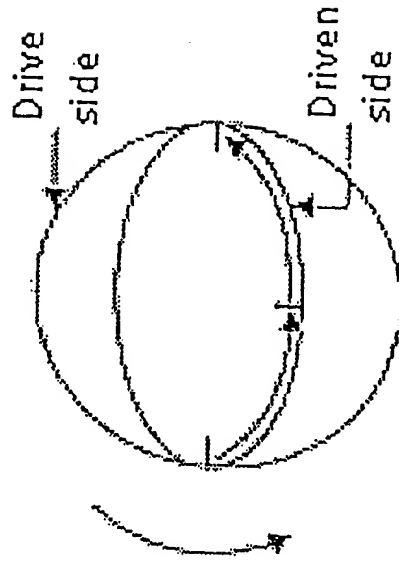


FIG. 2b

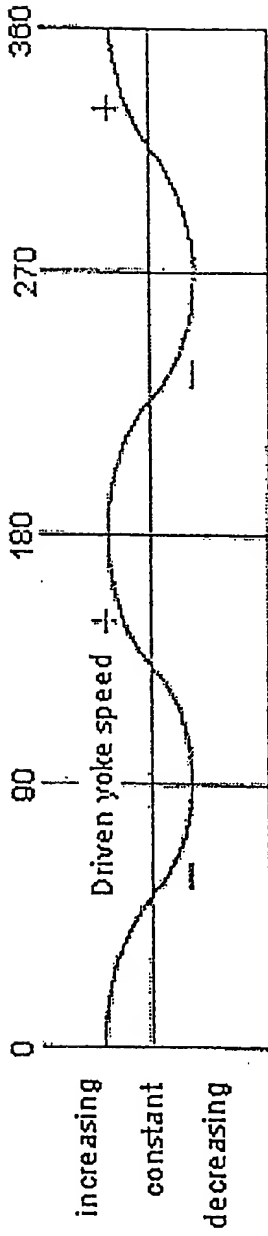


FIG. 3



FIG. 4

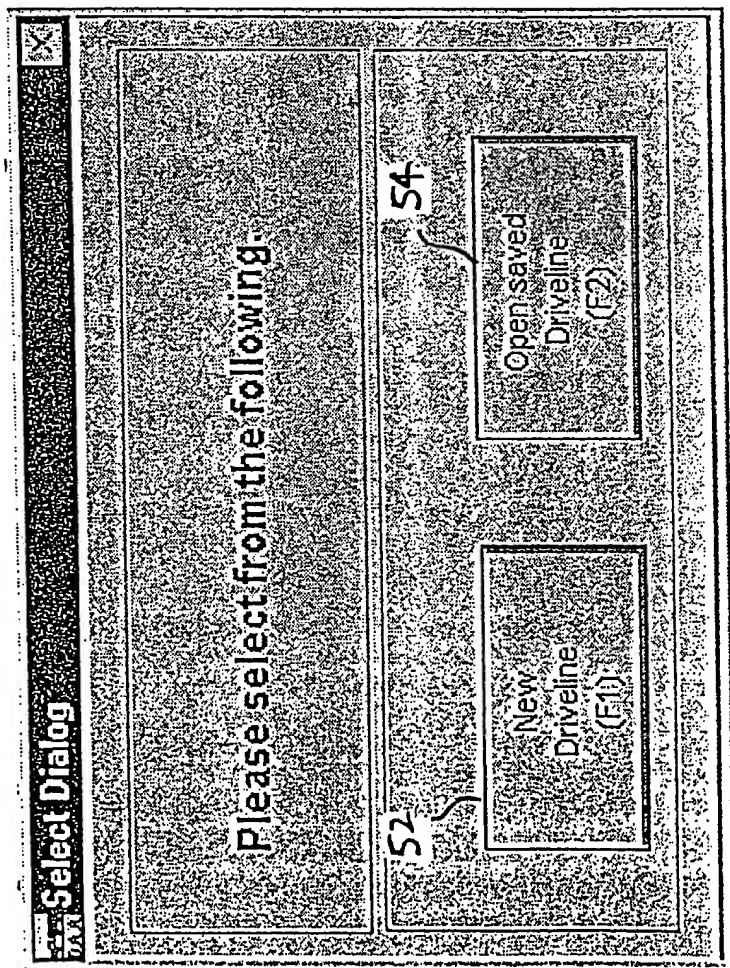


FIG. 5

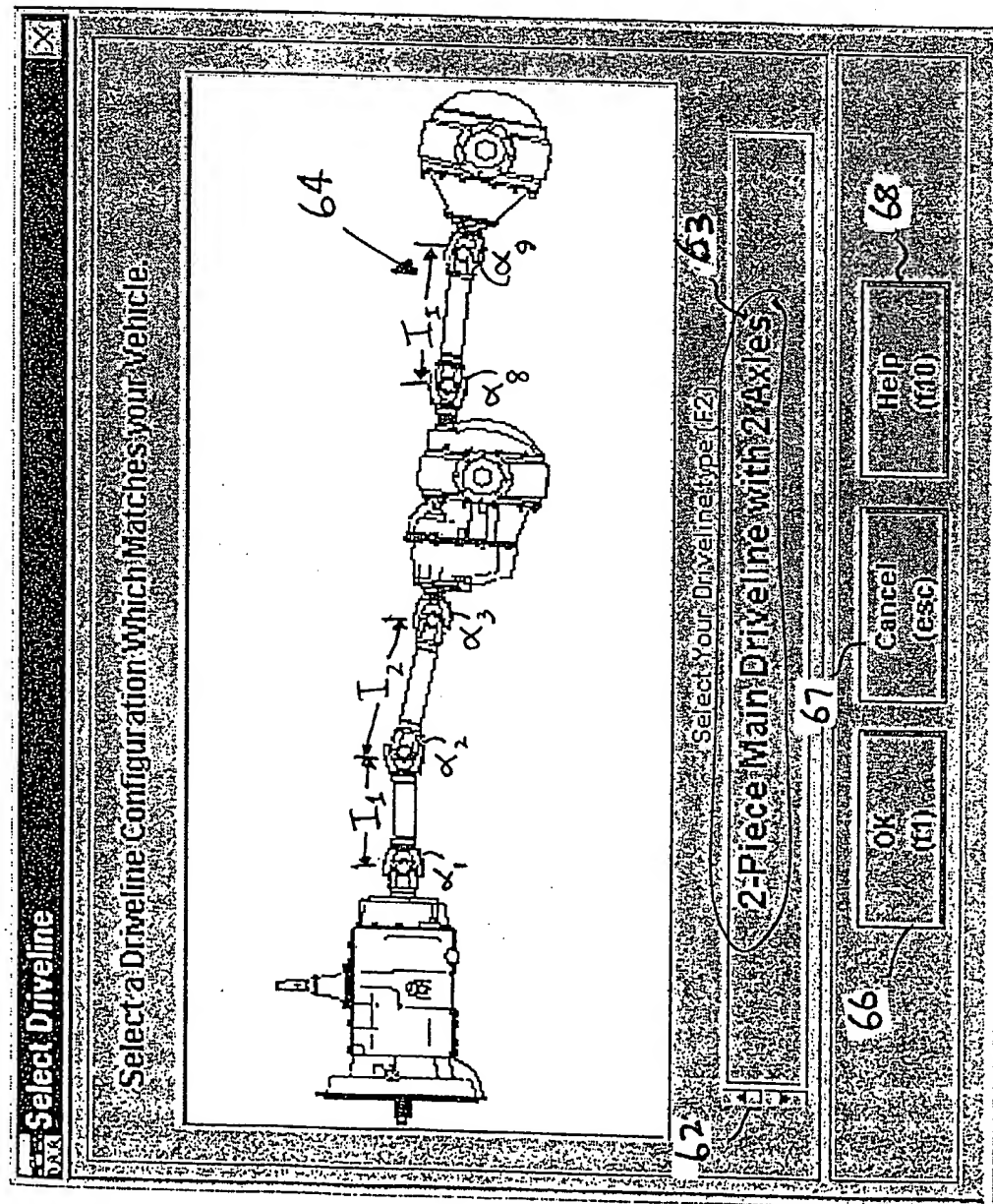


FIG. 6

Driveline Angle Analyzer

File Help

Truck Unit # (F1):

Reel Name:

Reel Account #:

Truck Manufacturer:

Truck Model:

VIN #:

Trans Model #:

Trans Serial #:

Clutch Manufacturer:

Clutch Size:

Comments:

Enter Vehicle Information

Des. Serial # (F2) (F3) (F4) (F5) (F6) (F7) (F8) (F9) (F10) (F11) (F12)

of Clutch Springs:

Clutch Part #:

Engine Make/Model #:

Wheel Base:

Steer Axle Tire Size:

Drive Axle Tire Size:

Main Driveline Series:

< Select 0 Driveline Series >

Interaxle Driveline Series:

< Select 3 Driveline Series >

Des. Serial # (F2) (F3) (F4) (F5) (F6) (F7) (F8) (F9) (F10) (F11) (F12)

D Head Serial #:

R Head Serial #:

Vehicle Mileage:

Vehicle Build Date:

Tested By:

70 →

71 ~

72 ~

73 ~

74 ~

75 ~

76 ~

FIG. 7

Worksheet

DriveLine Angle Analyzer

2-Piece Main with 2-Axes

80

81

82

83

84

85

86

87

Before measuring Angles:

1. Clock most aid rear wheels

2. Place trans in NEUTRAL

3. Release parking brake

Measure DriveLine Length:

All drive shafts & tubes are measured from the yoke end cap center.

Measure DriveLine Directions:

To Measure Component Angles:

Positive angles (+) - The end observed to the motor for the vehicle is higher than the end closer than the motor for the vehicle.

Negative angles (-) - The end observed to the motor for the vehicle is lower than the end closer than the motor for the vehicle.

To check DriveLine Phasing:

DriveLine Phase & Zero degrees when the yoke end caps are aligned

DriveLine Phase & 90 degrees when the yoke end caps are totaly offset

Truck Unit #	Chassis Manufacturer	Main DriveLine Series	Tail End
Part Name	Chassis Size	Universal DriveLine Series	Use engine RPM in top gear
Part Account #	# of Chassis Springs	Auto Manufacturer	Top gear ratio of trans
Truck Manufacturer	Chassis Description	Auto Model #	
Truck Model	Engine Type	D-Head Serial #	
VIN #	Serial Date	R-Head Serial #	
Truck Model #	Over-All Tire Size		
Truck Serial #	Drive-All Tire Size		

Print

Cancel

Esc

89a 89b

FIG. 8

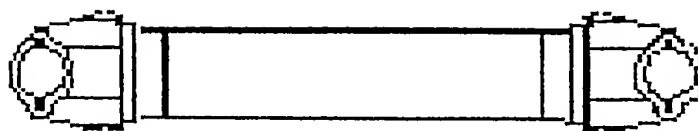


FIG. 9a

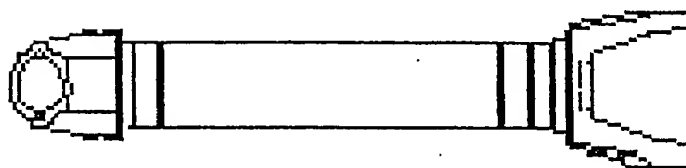


FIG. 9b

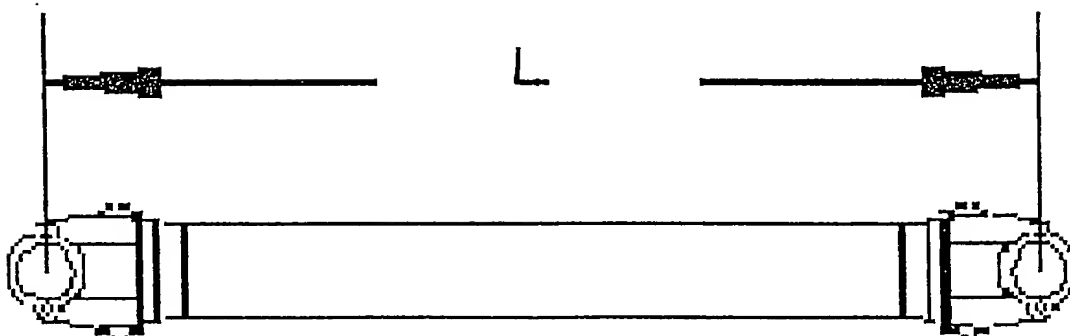


FIG. 10

09736232-081301
T0ET80-2E29E760



FIG. 11a

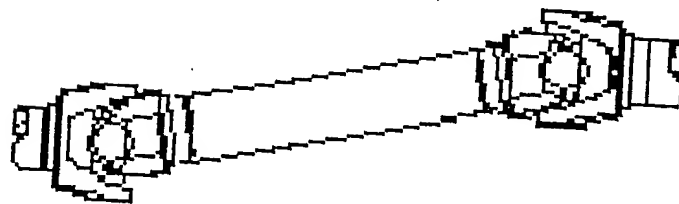


FIG. 11b

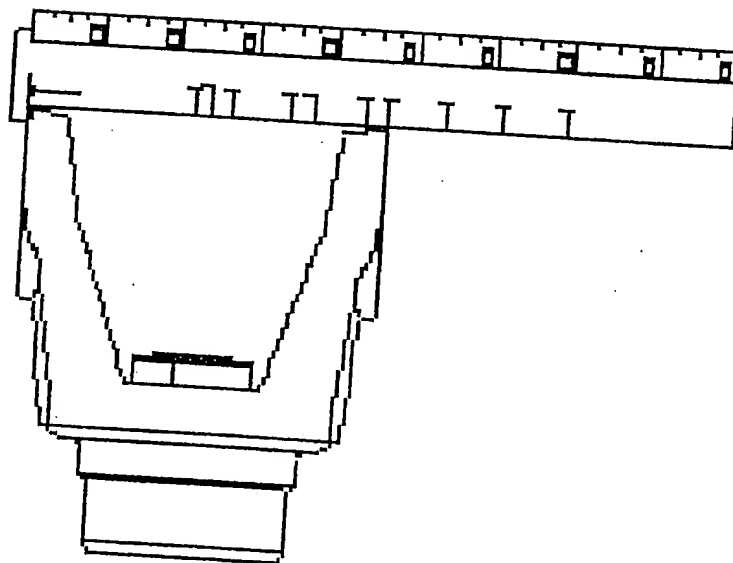


FIG. 12

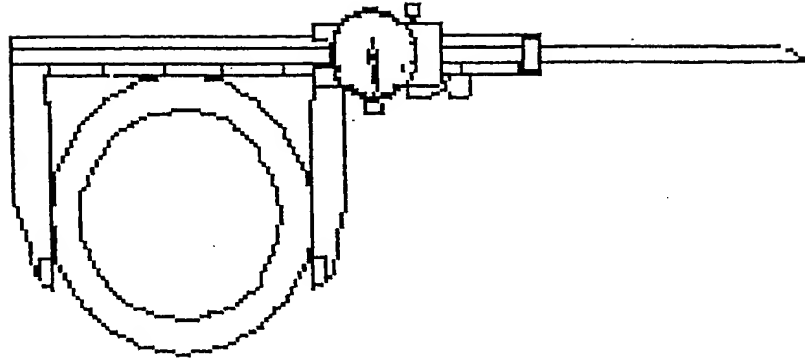


FIG. 13

FIG. 14

FIG. 14

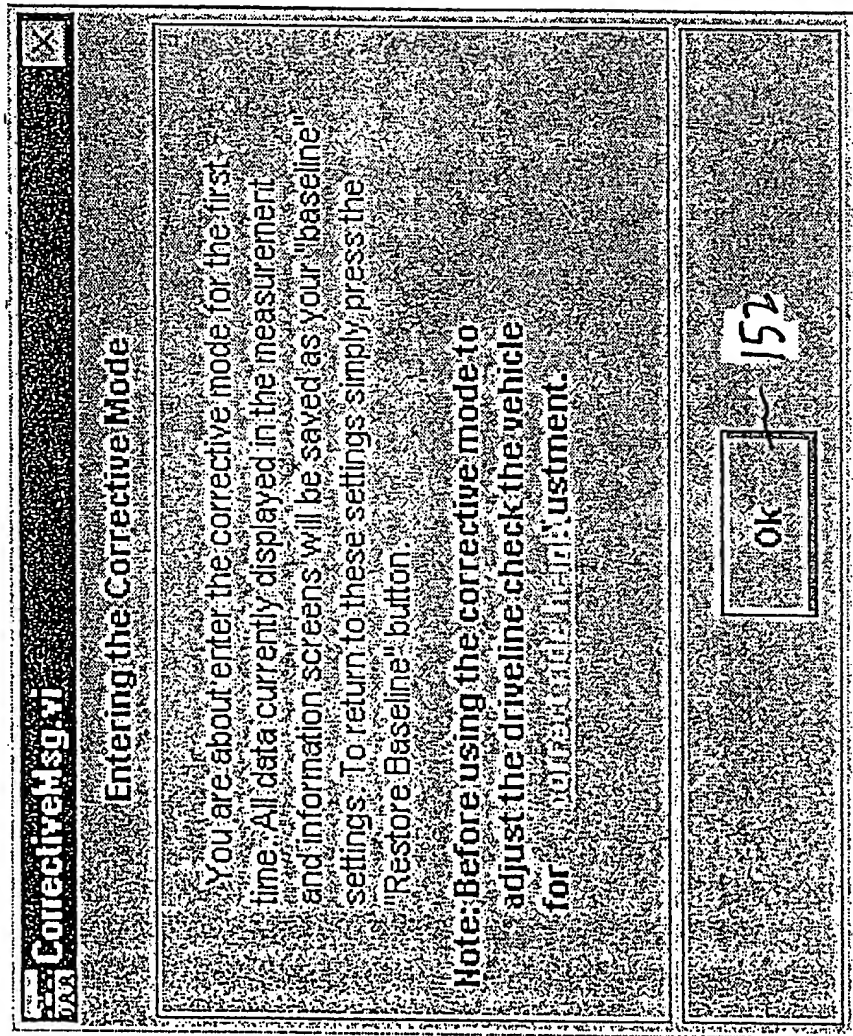
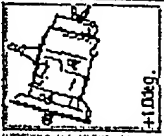


FIG. 15

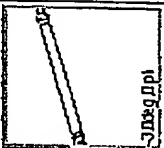
DriveLine Angle Analyzer

File Help

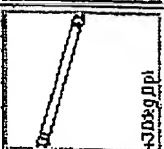
2-Piece Main DriveLine with 2 Axes:



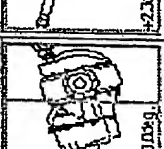
Frame Angle



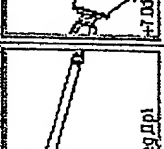
Transmission Phase Angle



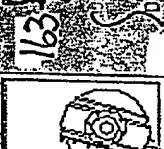
#1 Prop Shaft Phase Angle



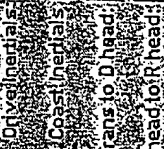
#2 Prop Shaft Phase Angle



D Head Angle



Interaxle Shaft Phase Angle



R Head Angle

Max DriveLine RPM: 2100.00 RPM

DriveLine #1: 163

DriveLine #2: 165

Trans to D head: 235.71 rad/sec

D head to R head: 178.65 rad/sec

Overall: 248.48 rad/sec

Good

Comments:

The user would then enter all the measurements enter on the worksheet into this screen.

Next DriveLine: 162

Open: 163

Save: 164

Print Worksheet: 165

Information: 166

Measurements: 167

Corrective Model: 168

Restore Baseline: 169

Print Results: 170

Directions: 171

Help: 172

Exit: 173

FIG. 16

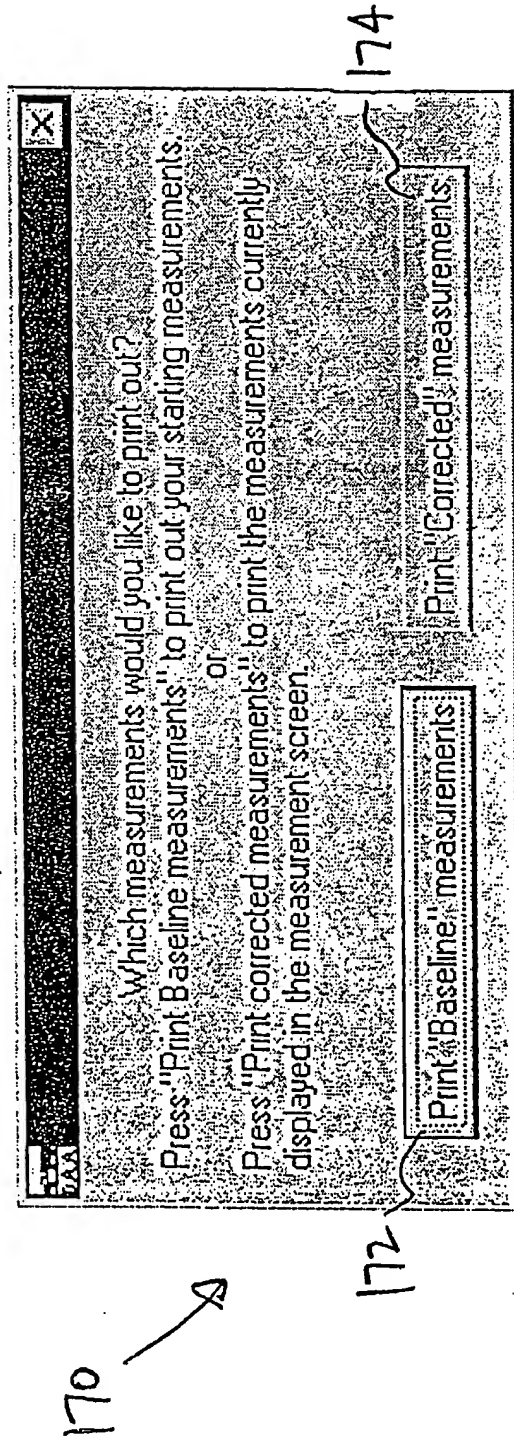


FIG. 17

Print Results

Roadrunner
DRIVE SHAFT ANALYZER

2-Piece Main Driveline with 2 Axles (Baseline)

Vehicle Information:

Truck Unit #

File Name

File Account #

Truck Manufacturer

Truck Model

Year #

Trans Model #

Trans Serial #

Circuit Manufacturer

Circuit Size

of Circuit Springs

Circuit Part #

Engine Make/Model

Wheel Base

Skid Plate Tire Size

Drive Axle Tire Size

Main Driveline Series

Break Drive Line Series

Axle Manufacturer

Axle Model #

D-Head Serial #

R-Head Serial #

Vehicle Mileage

Vehicle VIN Data

Tested By

Driveline Angle Analyzer

Truck Unit #

File Name

File Account #

Truck Manufacturer

Truck Model

Year #

Trans Model #

Trans Serial #

Circuit Manufacturer

Circuit Size

of Circuit Springs

Circuit Part #

Engine Make/Model

Wheel Base

Skid Plate Tire Size

Drive Axle Tire Size

Main Driveline Series

Break Drive Line Series

Axle Manufacturer

Axle Model #

D-Head Serial #

R-Head Serial #

Vehicle Mileage

Vehicle VIN Data

Tested By

Driveline Dimensions:

Frame Angle	Angle	Length (in)
0.00	0.00	24.00
1.00	1.00	24.00
-3.00	-3.00	24.00
3.00	3.00	24.00
-3.00	-3.00	15.00
0.00	0.00	
9.00	9.00	

Driveline Results:

Max Criveline RPM	RPM	Drive Inertia	ft-lb	ft-lb	Trans to Output	rad/sec ²	Output to Release	rad/sec ²	Overall Results	rad/sec ²
2100.00	2100.00	21.12	56.93	235.71	1080.88	1080.88	1080.88	1080.88	1080.88	1080.88

Driveline Dimensions:

Frame Angle: 0.00

Trans Inertia: 1.00

#1 Prop Shaft: -3.00

#2 Prop Shaft: 3.00

Output to Release: -3.00

Input to Shaft: 0.00

Road Angle: 9.00

Driveline Results:

Max Criveline RPM: 2100.00

Drive Inertia: 21.12

ft-lb: 56.93

Trans to Output: 235.71

Output to Release: 1080.88

Overall Results: 1080.88

Driveline Angle Analyzer

Truck Unit #

File Name

File Account #

Truck Manufacturer

Truck Model

Year #

Trans Model #

Trans Serial #

Circuit Manufacturer

Circuit Size

of Circuit Springs

Circuit Part #

Engine Make/Model

Wheel Base

Skid Plate Tire Size

Drive Axle Tire Size

Main Driveline Series

Break Drive Line Series

Axle Manufacturer

Axle Model #

D-Head Serial #

R-Head Serial #

Vehicle Mileage

Vehicle VIN Data

Tested By

FIG. 18

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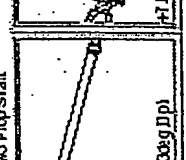
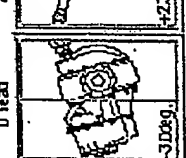
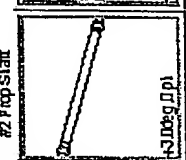
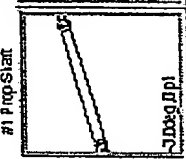
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Driveline Angle Analyzer

Truck Unit #	After
Fuel Name	filling of wood select
Fuel Account #	De
Truck Maintecher	user
Truck Model	401013
VIN #	fuel
Trans Model #	after
Trair Serial #	all
Circuit Maintecher	file
Circuit Size	table
# of Circuit Springs	100
Circuit Parts	file
Engine Parts/Model #	screen
Volter Part	
Size/Air Tire Size	
Dura Air Tire Size	
an Drive Line Series	Spider 1610
Drive Line Series	Spider 1620
Air Maintecher	DataSpider (formerly Easy)
Air Model #	401
O-Head Serial #	
R-Head Serial #	
Vehicle Mileage	
Vehicle # and Date	
Tested By	

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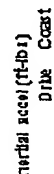
Good

Driveline Dimensions:

Angle	Phase	Length (m.)
Prime Angle:	0 deg	24.00
Train and cda:	0 deg	24.00
1st Prop Shift:	0 deg	14.87
2nd Prop Shift:	0 deg	
Dread Aft:	0 deg	
Brake Shift:	0 deg	
Rhead Aft:	0 deg	

Driveline Results:

	RPM	Overall radius*
Base Driveline RPM:	2100.00	
Drive Inertia C	27.25 ft-lbs	3000
Coupling Inertia C	25.04 ft-lbs	2800
Torque to D-Road	235.71 rad/sec ²	2800
D-Road to R-Road	78.86 rad/sec ²	2400
Overall Results	248.40 rad/sec ²	



Max Engine RPM	2100.00	Front Ride Height	0.00
In Top Gear:		Back Ride Height	0.00
Top Gear Ratio:	1.00		

Comment:

The user would then enter all the measurements enter on the worksheet.

Printo
printer(f1)

191

194

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FIG. 19

FIG. 20

FIG. 20

Walksheet2.vi

Rockwell

Drive Angle Analyzer

6X6

21 Prop shaft

Angle: deg

Length: in

Phase Angle (click on): 0 deg 90 deg

22 Prop shaft

Angle: deg

Length: in

Phase Angle (click on): 0 deg 90 deg

23 Prop shaft

Angle: deg

Length: in

Phase Angle (click on): 0 deg 90 deg

24 Prop shaft

Angle: deg

Length: in

Phase Angle (click on): 0 deg 90 deg

Frame Angle: deg

R-Head Angle: deg

D-Head Angle: deg

T-Case Angle: deg

Front Axle Angle: deg

Before measuring Angles:

1. Check front and rear wheels.
2. Place in NEUTRAL.
3. Release parking brake.

Measurement Directions:

To Measure Driveline Length:
All drive shaft lengths are measured from the yoke end caps centers.

To Measure Component Angles:
Positive angles (+) = The end closest to the front of the vehicle is higher than the end furthest from the front of the vehicle.

Front of Vehicle

Rear of Vehicle

Negative angles (-) = The end closest to the front of the vehicle is lower than the end furthest from the front of the vehicle.

To check Driveline Phasing:
Driveline Phase is Zero degrees when the yokes and caps are aligned.

Driveline Phase is 90 degrees when the yokes and caps are not aligned.

Truck Unit #	Years Serial #	Steer Axle Tire Size	R-head Serial #
Fleet Name	Clutch Manufacturer	Drive Axle Tire Size	T-Case Model #
Fleet Account #	Clutch Size	Main Driveline Series	T-Case Serial #
Truck Manufacturer	# of Clutch Springs	Intermediate Driveline Series	Vehicle Mileage
Truck Model	Clutch Description	Front Axle Driveline Series	Vehicle Birth Date
VIN #	Engine Type	Axle Manufacturer	Tested by
Truck Model #	Wheel Base	<div style="display: flex; justify-content: space-around;"> <div>Print</div> <div>Cancel</div> </div>	

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FIG. 21